EXHIBIT 8

UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF NEW YORK

In Re: Methyl Tertiary Butyl Ether ("MtBE")

Products Liability Litigation

MDL No. 1358

Master File C.A. No.

1:00-1898 (SAS)

This document relates to the following cases:

City of New York v. Amerada Hess Corp., et al.

04 Civ. 3417

2nd ERRATA TO FEBRUARY 6, 2008 EXPERT REPORT OF David B. Terry, P.G.

LEGGETTE, BRASHEARS & GRAHAM, INC.
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Signature

April 20, 2009

Date

purposes of this assessment. However, a range of degradation rates was evaluated in this assessment for the more conservative release scenarios. The 50 gallon release scenario was modeled utilizing a two-year degradation half life to provide the most conservative combination of input assumptions.

A graph of the modeled concentrations of MTBE which are projected to be present in water produced at Station 6 based on the assumptions and results of Analysis 2 are summarized in Figure 8. The composite MTBE influent concentration is based on the projected concentration of MTBE which would occur at each well supplying Station 6 weighted by the percentage of the total flow to the station which is derived from the respective well. Influent concentrations were calculated in this manner for the combined flow to Station 6 under conditions both with and without including the contributions from Well 6C, to simulate the various operating conditions planned for Station 6. Individual MTBE breakthrough curves for each Station 6 well as projected by Analysis 2C are presented in Figure 9. The results of this analysis are further summarized in Section 3.3.

3.3 Summary of Projected Future MTBE Concentrations at Station 6

The results of the simulations performed in Analysis 1 and 2 both indicate that MTBE will be present at the Station 6 wells at concentrations requiring treatment when pumping of these wells is reactivated in 2016. After pumping at Station 6 is begun, MTBE concentrations are expected to be highest in the initial eight to 10 years of operation, and will then decrease over the remaining years of the assessment. The analyses both indicate that MTBE will likely remain present in the Station 6 wells at concentrations exceeding the 3 ppb treatment goal until at least 2040.

Analysis 1, which is based on the estimated distribution of known ground-water quality conditions in the aquifer system in 2004, indicates that an MTBE concentration of about 20 ppb can be expected to occur when pumping is initiated at Station 6 in 2016. The concentration at Station 6 will fluctuate somewhat with the initiation of pumping of additional supply wells associated with the Water Supply Dependability project, and will generally rise with continued pumping until peaking at about 35 ppb 2024 (Figure 6). The concentration will then generally decline after 2024, reaching 21 ppb by 2040.

The three scenarios considered in Analysis 2 show projected concentrations which are lower than those from Analysis 1 (Figure 8). For the 2,000 gallon release scenario (Scenario C), the blended MTBE concentration is projected to peak in 2015 at a concentration of 18 ppb and gradually decline until 2020 when pumping is initiated at additional DEP supply wells under the Dependability program. The MTBE

concentration thereafter would fluctuate between 8 and 9 ppb for the remainder of the assessment period until 2040. Additional simulations performed under Analysis 2 (Scenarios A and B) for the 50 gallon and 500 gallon spill volumes indicated lower projected MTBE concentrations than Scenario C.

A comparison of the future projected MTBE concentrations at Station 6 obtained using Analysis 1 and Analysis 2c is provided in Figure 10. As Analysis 1 is based on actual observed ground-water quality data, I conclude that the assumptions utilized in Analysis 2 likely under-represent the MTBE mass which is present in the aquifer system as of 2004.

Both Analysis 1 and Analysis 2 make the conservative assumption that MTBE mass within the model domain is limited to those sites for which MTBE or release data is available. In Analysis 1, the approach assumes that the bulk of the MTBE mass is limited primarily to those areas in which monitoring data is available for the 2004 – 2008 period. In Analysis 2, the approach assumes that MTBE mass loading is derived only from sites in which sufficient information was readily available to classify the site as a "significant source" for the purposes of this analysis. In reality, there are many gasoline storage, refueling and spill locations within the future Station 6 capture zone that are likely to also comprise sources of MTBE mass to ground water. Based on the results of a recent study of nearby Nassau County, Long Island, MTBE was found to be present at concentrations exceeding 10 ppb at 53% of the 'non-discharge site' gasoline stations tested (NYSDEC, 2008). Furthermore, Analysis 2 assumes that all discharges are limited to 2,000 gallons of gasoline, while it is likely that some spills may have involved substantially larger volumes of discharge.

Based on these analyses, I conclude that it is reasonable to anticipate the MTBE concentration at Station 6 when pumping is activated in 2016 will peak at around 35 micrograms per liter, as indicated by Analysis 1, and that the impacts of MTBE contamination at Station 6 will likely extend at least until the end of the 2040 analysis period, as indicated by both Analysis 1 and Analysis 2. Engineers designing a treatment process for Station 6 should take these projections into account when developing an appropriate design goal for the system. However, appropriate safety factors and engineering judgment should also be exercised to reflect the possibility that additional sources of MTBE mass may be present that were not accounted for in these analyses.

4.0 MTBE Projections for Defendant Well Locations

LBG was provided with a list of five existing capacity New York City DEP Public Water Supply Wells which are not part of the Station 6 supply system, and was requested to perform an analysis of future potential MTBE concentrations that could occur at these wells if they were to be pumped. We understand that these wells were selected for analysis by the defendants in the pending MTBE litigation case. The subject wells are identified as Well 5, Well 22, Well 26, Well 39 and Well 45. These wells are completed in the Magothy Aquifer (Well 5) and the Upper Glacial Aquifer (Wells 22, 26, 39 and 45) in Queens County. We understand that none of these wells is identified as an operating well under the current New York City ground water management plan, but that each of these wells is included in the Jamaica System Water Supply Permit (2-6399-00005/00001) and available to be operated at any time on an emergency basis, such as in drought circumstances.

As there is no specific comprehensive operating scenario for the five subject wells, we performed a separate analysis for each well using an analytical transport modeling approach. This analysis was intended to project MTBE concentrations which could reasonably occur at each of the wells in the event that it is operated in the future. For the purpose of this assessment, we simulated a condition in which the subject well begins pumping in 2009. In the event that another operating scenario is utilized, the results of the analysis would differ from that presented in this assessment. However, we believe that this approach provides a reasonable basis for determining the peak concentration and duration of MTBE contamination which could occur at each well for the purposes of developing an engineering design for treatment, if necessary.

4.1 Method of Analysis

As described above, an analysis was performed of the projected MTBE concentration which could reasonably be expected to occur at each defendant well if pumping were initiated in 2009. The analysis was performed using a standard analytical transport modeling approach for each discharge, and the results of these analyses were then composited for each subject supply well.

The analysis for the defendant well locations was completed using the following steps:

1) Capture zones were developed for each well using the MPI 6-layer state flow model operating under steady-state conditions. Two capture zones were developed; one for pumping of the subject well alone under 'WHPA' conditions, and one for full pumping conditions based on the NYCDEC

Dependability pumping scenario. The two capture zones were then composited together (Figures 11 and 12).

2) Source locations identified as significant sites were identified within each composite capture zone per the procedure described in Section 3 of this report (Figures 11 and 12). Some significant sites had reports of multiple spill events. Each spill event was tabulated separately during the remainder of this analysis.

3) Available information on the volumes of gasoline released at each source was reviewed and tabulated. For the majority of spills, the spill volume was not specified. These sites were then assigned a range of variable gasoline spill volumes under three scenarios: 50 gallon, 500 gallon and 2,000 gallon releases. Each spill was assigned to a specific year based on available information. In the absence of a known spill date, the date of the spill discovery or report was used as a surrogate for the spill date.

4) The mass of MTBE per spill for each release scenario was calculated. The MTBE content of the gasoline was based on information on average MTBE percentage typically present in gasoline in this area of New York State during the discharge year (from USEPA, 2007).

5) The spills were divided into two groups – those in which the projected contaminant plume was fully within the projected capture zone area (Group A) and those in which the plume extended beyond the capture area (Group B). Group A spills were evaluated using a one-step transport calculation and Group B spills were evaluated using a two step calculation (representing pre-pumping and pumping conditions, respectively).

For Group A spills the following calculation procedures were followed:

6A) The ground-water velocity at the spill location was determined using reverse particle tracking from the spill location to the respective production well. The particle tracking was performed using the MODPATH code within the MPI 6-Layer model as described above.

7A) The rate of MTBE loading to ground water from the spill location was developed for each scenario assuming an exponential loading pattern with a two-year half life.

8A) The transport of MTBE from the source location to the production well was calculated using the ATRANS analytical model. In addition to the ground-water velocity and loading pattern calculated above, input values for dispersivity, longitudinal, traverse and vertical dispersion were used based on the values developed for the Station 6 numerical modeling. Degradation during transport was specified as 'no degradation' for the 2,000 gallon scenario, 10 year half life for the 500 gallon scenario, and 2 year half life for the 50 gallon scenario. Actual degradation of MTBE in this aquifer system is considered unlikely.

9A) The concentration of MTBE at the production well resulting from each spill was calculated as the mass of MTBE arriving in the vicinity of the production well each year divided by the annual production rate of the well. The production rate of each well was assumed to be the maximum capacity of the well running on a continuous basis.

For Group B spills the following calculation procedures were followed:

6B) The pre-pumping migration of MTBE from each spill site was calculated based on the flow directions and velocities from the 1991 calibrated the MPI 6-Layer flow model. The ground-water velocity at the spill location was determined using forward particle tracking from the spill location between the spill date and 2009. The particle tracking was performed using the MODPATH code as described above.

7B) The rate of MTBE loading to ground water from the spill location was developed for each scenario assuming an exponential loading pattern with a two-year half life.

8B) The migration of MTBE away from the source location was calculated using the ATRANS analytical model. In addition to the ground-water velocity and loading pattern calculated above, input values of dispersivity, longitudinal, traverse and vertical dispersion were used based on the values developed for the Station 6 numerical modeling. Degradation during transport was specified

as 'no degradation' for the 2,000 gallon scenario, 10 year half life for the 500 gallon scenario, and 2 year half life for the 50 gallon scenario. Actual degradation of MTBE in this aquifer system is considered unlikely.

9B) The extent of the contaminant plume for each spill was mapped, and the extent and location of the plume was compared to the extent of the composite capture zone for the respective production well. For sites with multiple spills, a combined plume resulting from the contribution of each spill was developed during this step. The fraction of the mass of MTBE from each plume that remained within the capture zone as of 2009 as determined by the ATRANS model run was calculated in ArcGIS. The plume mass remaining within the capture zone was used to develop a second ATRANS model run to simulate the migration of the remaining mass toward the respective production well beginning in 2009.

10B) A second ATRANS run was performed for each Group B plume to simulate transport between the 2009 plume location and the production well. The ATRANS input for these runs was the same as Step 8A, above. The initial loading rate for each plume was modeled as a single release based on the mass remaining in each plume as calculated in Step 9B, above.

11B) The concentration of MTBE at the production well resulting from each plume was calculated as the mass of MTBE arriving in the vicinity of the production well each year divided by the production rate of the well. The production rate of each well was assumed to be the maximum capacity of the well running on a continuous basis.

The MTBE concentrations at each production well resulting from simulated discharges occurring at each location were totaled together for each production well based on the Group A and Group B runs described above. The assumed pumping rates for each well were based on the maximum reported capacity as follows:

Well	Discharge Rate
05	1,200 gpm
22	1,020 gpm
39	1,400 gpm
45	1,050 gpm

The resulting curves for each of the 15 sites are presented in Figures 13 through 27, and the totaled results for each well area presented in Figure 28 through 31. Note that no analysis was performed for Well 26, as no significant sources of MTBE contamination were identified within the capture zone for this well using the methods described above.

4.2 Summary of Projected Future MTBE Concentrations at Defendant Wells

The results of the analytical transport simulations performed for the four of the five selected well locations indicate that MTBE is likely to be present at concentrations requiring treatment should pumping of these wells be reactivated. Specific analyses were performed to project the potential range of MTBE concentrations that could be expected if pumping of these wells was initiated in 2009.

The projections completed during this analysis indicate that MTBE can be expected to be present in water produced at Well 5 if pumping were initiated in 2009. The concentrations of MTBE which would occur are not known, but could reasonably be expected to reach about 70 ppb, if the gasoline discharges known to have occurred in the well capture zone approximate the conditions of the 2,000 gallon release scenario considered in this analysis. The MTBE concentrations can be expected to decrease over time, but could reasonably be expected to remain above the 3 ppb treatment goal for 18 years (until 2027) if the gasoline releases approximate the simulated conditions. An engineer designing treatment for Well 5 should use these projections as a reasonable basis of design for the influent to the treatment plant.

The projections completed during this analysis indicate that MTBE can be expected to be present in water produced at Well 22 in the future if pumping were initiated in 2009 and was sustained into the future. The concentrations of MTBE which would occur are not known, but could reasonably be expected to reach about 35 ppb in 2020, if the gasoline discharges known to have occurred in the well capture zone approximate the conditions of the 2,000 gallon release scenario considered in this analysis. The MTBE concentrations can be expected to decrease after 2020, but could reasonably be expected to remain above the 3 ppb treatment goal until 2035 if the gasoline releases approximate the simulated conditions. An engineer designing treatment for Well 22 should use these projections as a reasonable basis of design for the influent to the treatment plant.

The projections completed during this analysis indicate that MTBE can be expected to be present in water produced at Well 39 if pumping were to be initiated in 2009 and was sustained into the future. The concentrations of MTBE which would occur are not known, but could reasonably be expected to be 25 ppb, if the gasoline discharges known

to have occurred in the well capture zone approximate the conditions of the 2,000 gallon release scenario considered in this analysis. The MTBE concentrations can be expected to decrease over time, but could reasonably be expected to remain above the 3 ppb treatment goal for 11 years (until 2020) if the gasoline releases approximate the simulated conditions. An engineer designing treatment for Well 39 should use these projections as a reasonable basis of design for the influent to the treatment plant.

The projections completed during this analysis indicate that MTBE can be expected to be present in water produced at Well 45 in the future if pumping were initiated in 2009 and was sustained into the future. The concentrations of MTBE which would occur are not known, but potentially reach as high as 175 ppb after several years of pumping, depending on the overall pumping scenario, if the gasoline discharges known to have occurred in the well capture zone approximate the conditions of the 2,000 gallon release scenario considered in this analysis. The MTBE concentrations would be expected to decrease after 2011, but could reasonably be expected to remain above the 3 ppb treatment goal until at least 2040 if the gasoline releases approximate the simulated conditions. An engineer designing treatment for Well 45 should use these projections as a reasonable basis of design for the influent to the treatment plant.

5.0 Opinion

Based on the ground-water contaminant transport modeling simulations performed by LBG under my oversight, I have developed the following expert opinions:

1) The gasoline additive MTBE is present in ground water within the future capture zone of the wells which will supply water to Station 6. Some of the MTBE present today within the aquifer system will be intercepted by the Station 6 wells in the future when the use of this water supply is resumed in 2016.

2) The primary source of the MTBE present in the aquifer system tapped by Station 6 is gasoline leakage and discharge from gasoline stations and refueling systems present within the Station 6 capture zone area.

3) Based on the distribution of known MTBE concentrations within the Station 6 capture zone, I have made projections of the future migration and distribution of dissolved MTBE in ground water using a computerized numerical transport model. The results of my projections indicate that the MTBE concentrations at

Station 6 when it is reactivated will, more likely than not, reach a peak concentration of about 35 ppb, and that the concentration of MTBE will remain at or above 3 ppb until at least 2040.

4) Based on the information which is available concerning discharges in the Station 6 capture zone, and by making reasonable assumptions about the volumes of gasoline discharges, the timing of the releases and the migration of MTBE from these discharges to the underlying ground water, I performed an additional modeling assessment of future potential MTBE impacts at Station 6. From this assessment, I conclude that MTBE concentrations will, more likely than not remain at or above 3 ppb until at least 2040.

5) I conclude that Engineers designing a treatment process for Station 6 should take the above projections into account when developing an appropriate design goal for the system, but that appropriate safety factors and engineering judgment should also be exercised to reflect the possibility that additional sources of MTBE mass may be present that were not accounted for in this analysis.

6) Wells 5, 22, 39 and 45 are not presently being utilized as water supply sources, but are available and permitted to be used by the City of New York should the need for additional water arise. Known gasoline discharge sites are located within the estimated capture zones of these four wells. Based on the timing of the discharges and on known water quality information for the discharge sites, MTBE is known to be present or can reasonably inferred to be present in ground water in the vicinity of these sites. Furthermore, it is reasonable to conclude that, more likely than not, additional gasoline discharge sites, which have not yet been identified, are present within the capture zones for these wells and represent sources of MTBE mass to the ground-water system.

7) Based on known and inferred conditions, I conclude that MTBE is likely to be present in the water produced at Wells 5, 22, 39 and 45 in the event that pumping of these wells resumes in the near future. Furthermore, for the purpose of establishing an appropriate treatment process, it would be reasonable and prudent for the treatment plant design engineer to expect and anticipate that the MTBE concentrations might remain at or above 3 ppb at well 5 until 2027, at Well 22 until 2035, at Well 39 until 2020 and at Well 45 until at least 2040. As such, I conclude that a reasonable engineer should consider these projections in developing the design of treatment plants for MTBE removal at these wells.